

6FS5

Beam Hexode

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC). 6.3 ± 0.6 volts

Current at heater volts = 6.3 0.200 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode. 200 max. volts

Heater positive with
respect to cathode. 200^a max. volts

Direct Interelectrode Capacitances (Approx.):

	<i>Without External Shield</i>	<i>With External Shield^b</i>	
Grid No.1 to plate.	0.03	0.016	μf
Grid No.1 to cathode & grid No.4 & grid No.2, grid No.3, and heater.	4.8	4.8	μf
Plate to cathode & grid No.4 & grid No.2, grid No.3, and heater.	2	2.8	μf

Characteristics, Class A₁ Amplifier:

Plate Voltage 275 volts

Grid-No.3 Voltage 135 volts

Grid-No.1 Voltage -0.2 volt

Plate Resistance (Approx.). 0.24 megohm

Transconductance. 10000 μmhos

Plate Current 9 ma

Grid-No.3 Current 0.17 ma

Grid-No.1 Voltage (Approx.) for
transconductance (μmhos) = 100. -5 volts

Mechanical:

Operating Position. Any

Type of Cathode Coated Unipotential

Maximum Overall Length. 2-1/8"

Maximum Seated Length. 1-7/8"

Length, Base Seat to Bulb Top (Excluding tip) . 1-1/2" \pm 3/32"

Diameter. 0.650" to 0.750"

Dimensional Outline See *General Section*

Bulb. T5-1/2

Base. Small-Button Miniature 7-Pin (JEDEC No.E7-1)



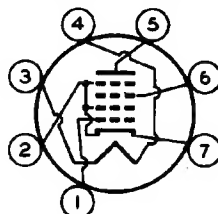
RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA
3-62

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Basing Designation for BOTTOM VIEW. 7GA

Pin 1—Grid No.1
Pin 2—Cathode,
Grid No.2,
Grid No.4
Pin 3—Heater
Pin 4—Heater



Pin 5—Plate
Pin 6—Grid No.3
Pin 7—Cathode,
Grid No.2,
Grid No.4

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	300 max.	volts
GRID-No.3 (SCREEN-GRID) VOLTAGE	150 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Negative-bias value	50 max.	volts
Positive-bias value	0 max.	volts
CATHODE CURRENT	20 max.	ma
GRID-No.3 INPUT	0.15 max.	watt
PLATE DISSIPATION	3.25 max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:
For fixed-bias operation. 0.5 max. megohm

- ^a The dc component must not exceed 100 volts.
^b With external shield JEDEC No.316 connected to pin 7.

OPERATING CONSIDERATIONS

This type has four grids—grid No.1 (Control grid), grid No.2 (Focusing grid), grid No.3 (Screen grid), and grid No.4 (Suppressor grid). Grid No.2 is (1) internally connected to cathode and grid No.4, (2) aligned with grid No.3, and (3) located between grids No.1 and No.3. The addition of grid No.2 results in an increase in the plate-current-to-screen-current ratio with subsequent noise reduction.

